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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,836	03/08/2004	Hwei-Ling Yau	87082CPK	1251

7590 04/07/2009  
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EXAMINER
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SHEWAREGED, BETELHEM

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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04/07/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/795,836	<b>Applicant(s)</b> YAU ET AL.	
	<b>Examiner</b> Betelhem Shewareged	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-9,11,13,15-24,26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) 26 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-9,11,13 and 15-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicant's response filed on 01/06/2009 has been fully considered. Claims 2, 4, 10, 12, 14 and 25 are canceled, and claims 1, 3, 5-9, 11, 13, 15-24, 26 and 27 are pending. Currently, claims 26 and 27 are withdrawn from consideration as non-elected invention.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5-9, 13 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallo et al. (US 2003/0107636 A1), as evidenced by Lawrence et al. (US 6,454,404 B1), in view of Landry-Coltrain et al. (US 2003/0138608 A1).

4. Gallo discloses an ink jet recording element comprising a substrate and a porous image receiving layer of encapsulated organic particles and water insoluble polymeric particles (abstract). The encapsulated organic particles are equivalent to the claimed second type of hydrophobic polymer particles and the water insoluble polymeric particles are equivalent to the claimed first type of hydrophobic polymer particles. The T<sub>g</sub> of the encapsulated organic polymers is less than 100 degree C [0030], and the particles are contained in the image receiving layer in an amount of up to 50% by wt of the image receiving layer [0050]. The particle size of the water insoluble polymeric

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particles is 10-500nm [0042], and the particles are contained in the image receiving layer in an amount of 5-30% by wt of the image receiving layer [0051]. Examples of the water insoluble polymeric particles are disclosed in US patent application ser. No. 09/770,128 [0037], which is now patented as Lawrence et al. US 6,454,404 B1.

Lawrence discloses that the Tg of the water insoluble polymeric particles is 135-136 degree C (col. 8, line 32 of Lawrence). The thickness of the image receiving layer may range from 1-60um [0062]. The image receiving layer may comprise crosslinkers [0064], and UV absorbers [0065]. The substrate comprises paper or polymer film [0056]. The ink jet recording element further comprises a base layer [0054].

5. With respect to the pore volume, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the pore volume of the image receiving layer in order to optimize the ink-absorbing properties of the layer. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

6. Gallo does not teach that the base layer comprises gelatin as recited in the claimed invention.

7. Landry-Coltrain teaches an ink jet recording element comprising a support and at least two ink receiving layers (abstract and [0070]). The recording element further comprises a base layer having a highly swellable polymers such as gelatin [0068]. With

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respect to the swelling amount, it is elementary that the mere recitation of newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art. *In re swinehart et al.*, 169 USPQ 226 at 229. Since the Landry-Coltrain reference teaches all of Applicant's claimed compositional and positional limitations, it is inherent that the reference article function in the same manner claimed by Applicant. The burden is upon Applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

8. Gallo and Landry-Coltrain are analogous art because they are from the same field of endeavor that is the ink jet recording art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the base layer of Landry-Coltrain with the invention of Gallo in order to absorb the solvent from the ink ([0068] of Landry-Coltrain).

9. Claims 1, 3, 5-9, 11, 13 and 15-24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallo et al. (US 2003/0107636 A1), as evidenced by Lawrence et al. (US 6,454,404 B1), in view of Tang et al. (US 6,632,485 B1).

10. Gallo discloses an ink jet recording element comprising a substrate and a porous image receiving layer of encapsulated organic particles and water insoluble polymeric particles (abstract). The encapsulated organic particles are equivalent to the claimed second type of hydrophobic polymer particles and the water insoluble polymeric particles are equivalent to the claimed first type of hydrophobic polymer particles. The

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Tg of the encapsulated organic polymers is less than 100 degree C [0030], and the particles are contained in the image receiving layer in an amount of up to 50% by wt of the image receiving layer [0050]. The particle size of the water insoluble polymeric particles is 10-500nm [0042], and the particles are contained in the image receiving layer in an amount of 5-30% by wt of the image receiving layer [0051]. Examples of the water insoluble polymeric particles are disclosed in US patent application ser. No. 09/770,128 [0037], which is now patented as Lawrence et al. US 6,454,404 B1. Lawrence discloses that the Tg of the water insoluble polymeric particles is 135-136 degree C (col. 8, line 32 of Lawrence). The thickness of the image receiving layer may range from 1-60um [0062]. The image receiving layer may comprise crosslinkers [0064], and UV absorbers [0065]. The substrate comprises paper or polymer film [0056]. The ink jet recording element further comprises a base layer [0054].

11. With respect to the pore volume, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the pore volume of the image receiving layer in order to optimize the ink-absorbing properties of the layer. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

12. Gallo does not teach that the base layer comprises gelatin as recited in the claimed invention.

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13. Tang teaches an ink jet receiving medium comprising a base layer and a top layer, wherein the base layer comprises a crosslinked gelatin and a polyurethane dispersion (Table 5). The thickness of the base layer is 10um (col. 8, line 61). With respect to the swelling amount, it is elementary that the mere recitation of newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art. *In re swinehart et al.*, 169 USPQ 226 at 229. Since the Tang reference teaches all of Applicant's claimed compositional and positional limitations, it is inherent that the reference article function in the same manner claimed by Applicant. The burden is upon Applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

14. With respect to the glass transition (Tg) value of the polyurethane dispersion, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the Tg value in order to improve the flexibility of the layer (col. 4, line 47). A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215. To date, this burden has not been sustained. Furthermore, with respect to the particle size of the polyurethane dispersion, one of ordinary skill in the art would have been motivated to adjust the particle size in order to optimize coating durability and absorption property of the layer.

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15. Gallo and Tang are analogous art because they are from the same field of endeavor that is the ink jet recording medium art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the base layer of the Tang with the invention of Gallo in order to reduce the curl and to absorb the majority of the ink (col. 6, line 5 of Tang).

### ***Response to Arguments***

16. Applicant's argument is based on that the Declaration under 37 CFR 1.131 serves to remove the Gallo reference as an effective publication through 35 USC 102(a). This argument is not persuasive because the Declaration under 37 CFR 1.131 is not acceptable for the following reasons: 1: An averment that the invention was made in the United States or in a NAFTA or WTO member country is missing; and 2: The Declaration was not executed by each of the inventors, it was executed by one of the inventors only.

17. Applicant further argued that the "Statement of Common Ownership" serves to remove the Gallo reference as an effective publication through 35 USC 102(e). This argument is not persuasive because The Statement of Common Ownership is not adequate because Gallo was published before the US filing date of the current application, thus Gallo qualifies as prior art under subsection (a) of section 102. See MPEP 706.02(I)(3).

18. Applicant also argued that the Declaration under 37 CFR 1.132 serves to overcome the asserted inherency of Landry-Coltrain and Tang. This argument is not



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persuasive for the following reasons. In Experiment 1, the Applicant measured the swelling capacity of a different layer, i.e., one of the ink receiving layers. In [0167], the Control Element C-2 is one of the two ink receiving layers, not a base layer. The base layer that the Examiner referring to in the above rejection is in [0068], not in [0167]. In Experiment 2, the Applicant measured the swelling capacity of three base layers, and the Applicant used hydroxymethyl pyrrolidone, TCG-III class 30 gelatin and Witcobond W-213 polyurethane to form these layers. However, the hydroxymethyl pyrrolidone, the TCG-III class 30 gelatin and the Witcobond W-213 polyurethane are not the same as the ingredients that are used to form the base layers in Examples 11-13, they are not even the same as the ingredients that are used to form the base layers in any of the other Examples. Thus the Declaration under 37 CFR 1.132 does not provide evidence with respect to the claimed swelling capacity.

19. For the above reasons claims 1, 3, 5-9, 11, 13 and 15-24 stand rejected.

### ***Conclusion***

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

21. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is (571)272-1529. The examiner can normally be reached on Monday-Friday 7am-4:30pm.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Bernatz, acting SPE for Carol Chaney can be reached on 571-272-1505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BS

April 6, 2009.

/Betelhem Shewareged/  
Primary Examiner, Art Unit 1794